

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
FISH PASSAGE
(No.)
CODE 396**

DEFINITION

Removing, modifying or replacing cross-channel structures or debris such as permanent and seasonal dams, weirs, water diversions, culverts, fords, flood-related debris and any other **natural**, artificial or human-induced condition that impedes downstream or upstream fish movement.

Fish shall not **be exposed to** increased predation by other fish, birds and terrestrial animals during passage at the structure or site.

Location and overall design of fish passage structure shall allow for the passage of the maximum number of fish and accommodate different species and age classes to the extent possible.

PURPOSE

To allow upstream and downstream movement for fish and other aquatic species past artificial or human-induced barriers **or natural stream barriers where there is a need to improve natural conditions.**

Location and overall design of passage structures shall accommodate watershed conditions such as seasonal flow regimes and bed load movement.

CONDITIONS WHERE PRACTICE APPLIES

All rivers, streams, outlets, of ponds or lakes, where man-made barriers or land management activities or **adverse natural conditions prevent or restrict** fish passage.

All fish passage practices will be planned, designed and applied in cooperation with State fisheries management agencies. In Maine these agencies include the Atlantic Salmon Commission, Department of Marine Resources, Department of Inland Fisheries and Wildlife.

CONSIDERATIONS

Consider removal of barrier or replacement with a structure that does not impede fish passage before designing an add-on fish ladder.

Restoration of natural conditions should be given highest priority consideration, due to limitations and inefficiency of artificial structures.

CRITERIA

Fish shall not be excessively delayed during passage at the structure or site.

Fish shall not be **caused excessive energy expenditure or other physical limiting factors** as a result of passage at the structure or site.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service. Contact Jeff Norment, NRCS State Biologist at 207-990-9571 or email concerns to jeff.norment@me.usda.gov.

Consider possible positive effects of preventing passage past artificial barriers of species that may hybridize, compete, or spread disease to native populations of species of concern in the watershed.

Consider aquatic species of concern that have established habitat in areas where barriers currently exist or in upstream and downstream areas that would be directly affected by the action.

Consider the amount of habitat both upstream and downstream of a barrier and the potential for connectivity of important habitats for fish species of concern, **in cooperation with the appropriate State Fisheries Resource agencies.**

Consider that flow velocity and jump height at a stream crossing site should not exceed the abilities of those species expected to move upstream and downstream of the site.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. Plans and specifications shall be in keeping with this practice and shall describe the details adequately to apply the practice to achieve its intended purpose.

OPERATIONS AND MAINTENANCE

An operation and maintenance plan shall be developed for all applications. The plan shall provide for periodic inspection and prompt repair should fish passage become impaired or inoperable at the structure or site.

/s/ Original by K. Staley 01/11/00